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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/598,795

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Andrei Radulescu

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS

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BRIARCLIFF MANOR, NY 10510

EXAMINER

CLEARY, THOMAS J

ART UNIT

PAPER NUMBER

2111

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/598,795	<b>Applicant(s)</b> RADULESCU ET AL.	
	<b>Examiner</b> Thomas J. Cleary	<b>Art Unit</b> 2111	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by the *Æthereal* NoC ("*Æthereal*") as disclosed in "Concepts and Implementation of the Philips Network-on-Chip" by Dielissen et al. ("*Dielissen*") and "Communication Services for Networks on Chip" by Radulescu et al. ("*Radulescu*").

3. In reference to Claim 1, *Æthereal* discloses an integrated circuit, comprising: a plurality of processing modules (M, S) (See Figure 11 Elements A-D of *Dielissen* and Figure 1 Elements IP of *Radulescu*), wherein at least one first of said processing modules (M) requests at least one communication service to at least one second processing module (S) based on specific communication properties and at least one communication service identification (See Page 3 Section 2.2.1 Paragraph 2 of *Dielissen* and Page 288 of *Radulescu*), an interconnect means (N) for coupling said plurality of processing modules (M, S) and for enabling a connection based

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communication having a set of connection properties (See Pages 3-4 Sections 2.2.1 and 2.2.2 of Dielissen and Page 288 of Radulescu), at least one network interface (NI) associated to said at least one first of said processing modules for controlling the communication between said at least one first of said plurality of processing modules (M) and said interconnect means (N) (See Figures 1, 7, and 11 of Dielissen and Figure 1 Elements NI of Radulescu), and a mapping means (A) for mapping the requested at least one communication service based on said specific communication properties to a connection based on a set of connection properties according to said at least one communication service identification (See Page 3 Sections 2.2.1 Paragraph 2 of Dielissen and Page 288 of Radulescu).

4. In reference to Claim 2, *Æthereal* discloses the limitations as applied to Claim 1 above. *Æthereal* further discloses that said mapping means (A) is arranged in said at least one network interface (NI) (See Figures 1 and 7 'AXI adapter' and 'DTL adapter' and Pages 3-4 Sections 2.2.1 and 2.2.2 of Dielissen).

5. In reference to Claim 3, *Æthereal* discloses the limitations as applied to Claim 1 above. *Æthereal* further discloses that said communication service identification comprises at least one communication thread, wherein said at least one communication thread is mapped to at least one connection based on a set of connection properties (See Page 288 of Dielissen).

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6. In reference to Claim 4, Æthereal discloses the limitations as applied to Claim 1 above. Æthereal further discloses that said communication service identification comprises at least one address range in said at least one second processing module (s), wherein said at least one address range is mapped to at least one connection based on a set of connection properties (See Pages 3-4 Sections 2.2.1 and 2.2.2 of Dielissen and Pages 290-291 and Figure 7 of Radulescu).

7. In reference to Claim 5, Æthereal discloses the limitations as applied to Claim 3 above. Æthereal further discloses that said communication service identification further comprises at least one address range in said at least one second processing module (S) (See Pages 3-4 Sections 2.2.1 and 2.2.2 of Dielissen and Pages 290-291 and Figure 7 of Radulescu).

8. Claims 6 and 7 recite limitations which are substantially similar to those of Claim 1 and are rejected under the same reasoning.

### ***Response to Arguments***

9. Applicant's reply to the requirement for information stating that there are no products or services that have incorporated the claimed subject matter is acknowledged.

***Response to Arguments***

10. Applicant's arguments filed 6 January 2009 have been fully considered but they are not persuasive.

11. Applicant has argued that the Æthereal NoC, as disclosed by Dielissen and Radulescu, does not disclose mapping means for mapping the requested at least one communication service based on said specific communication properties to a connection based on a set of connection properties according to said at least one communication service identification (See Pages 5-7). In response, the Examiner notes that Dielissen discloses multiple connections each having a different traffic class. A signal indicates to which connection a message is to be supplied. Thus the communication service is mapped to the connection for that message. (See Page 3 Section 2.2.1 Paragraph 2). Radulescu discloses that connections with desired connection properties are created. Thus the communication service is mapped to the connection for any communications requiring those connection properties (See Page 288 of Radulescu).

12. In response to applicant's argument that the references fail to show certain features of applicant's invention (See Page 6), it is noted that the features upon which applicant relies (i.e., that the identification means in the existing protocols are: communication threads and addresses, and that the threads or addresses are mapped

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to connections through the interconnect based on specific connection properties) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

13. Applicant's arguments with respect to Claims 2-7 are equivalent to and cumulative with those presented with respect to Claim 1 (See Page 7). The Examiner's response is therefore the same.

### ***Conclusion***

14. The following art made of record and not relied upon is considered pertinent to applicant's disclosure: "Networks on Chip" by Kees Goossens.

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Cleary whose telephone number is (571)272-3624. The examiner can normally be reached on Monday-Thursday (7-3).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 571-272-3632. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas J. Cleary/  
Patent Examiner, Art Unit 2111